

Subject: glowbugs V1 #219

glowbugs

Wednesday, January 7 1998

Volume 01 : Number 219

Date: Tue, 6 Jan 1998 10:18:51 -0500 (EST)

From: rdkeys@csemail.cropsci.ncsu.edu

Subject: Re: 813 xtal osc. (update) xtal rubbering

> > Only one problem with your method. The XTAL that I am useing is a sealed
> > monster and I can't get at the xtal to try. I need an electronic method of
> > frequency shift. Also would be nece to use the shift on both 80 amd 40
> > meter xtals. Maybee I should build a simple SS VFO and forget about XTALS.
> > I do like the simplicity of the XTAL.

> >

> > Kevin Pease

> > WB0JZG

> > Mount Juliet, TN.

>

> OK, then if you want the variable method, AKA VXO, add a small parallel
> capacitor across the xtal, say a single plate or two plate 10-20pf cap
> and use that to rubber it down. If memory serves me correctly, you can
> use it in series and rubber it up, but that is not what folks usually
> want to do on the BA/GB QRG. I was thinking you wanted a permanent move
> down, where the leaden or India ink trick would be the standard method.

>

> Bob/NA4G

Also, on 80M, the amount of rubbering via the VXO method is usually only around 2-3 khz. Much beyond that and the xtals tend to get very hard to start at keying rate. On 40M, it is quite common to do this as much as 7-10 khz and is/was popular amongst the QRP type folks for narrow range receiver heterodyne oscillators and transmitter VXO's. Sometimes, to accommodate a larger range of frequency swing, several xtals would be switched in or out and the rubbering capacitor would move any given xtal that happened to be switched in at the time. I remember back in my novice days doing this sort of thing on my DX-60, but it never worked as well as having a whole box full of rocks handy. Back then I had one of the BC-60x mobile FM tank transmitters that I tore up and kept the xtal box. It was pressed into service as my novice rock caddy. Alas, I sold it after the big general move and I could use a real vfo.....(:+{{..... I probably should have kept it.

Bob/NA4G

Date: Tue, 6 Jan 1998 12:53:25 -0500 (EST)

From: rdkeys@csemail.cropsci.ncsu.edu

Subject: Re: 813 xtal osc. (update) xtal rubbering

>

> Some of my friends used to use light pressure from a small "C" clamp to =
> change crystal frequency a few KHz. Don't know which way or how far or =
> if it will work with crystals of the modern form factor.

>
> Forrest Snyder
> N4UTY
> "Sure, it's 1936 technology. But it's GOOD 1936 technology!"

There were a couple of xtal holder companies that used to make holders with screw adjustable pressure plates for rubbering the xtals. Alas, they are quite rare, and I have only seen one in 30 years.

Bob/NA4G

Date: Tue, 6 Jan 1998 15:19:34 -0800 (PST)
From: "J. Herman" <jherman@sierra.net>
Subject: C and L meters

The Tech America catalog (TA is part of Radio Shack) shows two kits, capacitance and inductance measuring meters, to be used with a *digital* VOM.

Anyone know why these kits might not be compatable with an analog VOM?

73, Jeff KH2PZ/7

Date: Tue, 6 Jan 1998 19:22:47 -0500
From: "Ornitz, Barry L" <ornitz@eastman.com>
Subject: RE: C and L meters

Without knowing more information, I can only speculate:

A digital VOM (DVM) usually has a constant input impedance (either 1 Meg or more commonly 10 Megohm). An analog VOM has an input impedance that depends on which scale is chosen. A VTVM with a constant input impedance might work in this case (although they generally are 11 Meg input impedance on DC - 10 Meg in the meter and 1 Meg at the probe tip).

A DVM might be required to meet the accuracy specifications. *

Many DVM's have a 200 millivolt scale which is uncommon with analog meters.

* If you need three or more significant figures of accuracy in capacitance or inductance, you are unlikely to ever achieve this with an analog readout meter - unless you have a Fluke differential voltmeter, but these are really more in the class of "manual digital voltmeters".

If you have any further information on these kits, I will be happy to look at it and see if there really is a reason why an analog VOM would not work. My guess is that the writer of the ad copy is young and that he thinks the generic meter of today is a DVM (which it probably is).

73, Barry L. Ornitz WA4VZQ ornitz@tricon.net

>From: J. Herman [SMTP:jherman@sierra.net]
>The Tech America catalog (TA is part of Radio Shack) shows two kits,
>capacitance and inductance measuring meters, to be used with a *digital* VOM.
>
>Anyone know why these kits might not be compatible with an analog VOM?
>

Date: Tue, 6 Jan 1998 18:03:52 -0800 (PST)
From: "J. Herman" <jherman@sierra.net>
Subject: RE: C and L meters

Thank-you for your comments, Barry.
Maybe someone would be willing to buy one (hopefully the
inductance measuring kit!) and do a write-up.

Capacitance meter kit: 2.2pF to 2.2uF, #990-0043, \$12.95
Inductance meter kit: 3uH to 7mH, #990-0058, \$14.95

Both offered by Rainbow Kits. Order through Tech America,
800-877-0072 (make sure you get the TA catalog, too!).

73, Jeff KH2PZ / 7

P.S. With these two kits, we could hold a contest to build rigs
completely from scratch - home-made caps, inductors, resistors...
Reading the book "50 Years of the ARRL" mention is made of "...a 17-
year-old named Haddaway who had built his station from absolute
scratch, including the making of his own vacuum tubes!" (Feb. 1921)

Date: Tue, 6 Jan 1998 20:14:45 -0600 (CST)
From: Kevin Pease <hamradio@mm1001.theporch.com>
Subject: Re: 813 xtal osc. (update) xtal rubbering

On Tue, 6 Jan 1998 rdkeys@csemail.cropsci.ncsu.edu wrote:

>
> There were a couple of xtal holder companies that used to make holders
> with screw adjustable pressure plates for rubbering the xtals. Alas,
> they are quite rare, and I have only seen one in 30 years.

>
> Bob/NA4G

>
> Bob I have one of those I should send it into CW crystals and get them to
> put a 3.58 slab into it then I can shift around a bit.

Kevin Pease
WB0JZG
Mount Juliet, TN.

Date: Wed, 7 Jan 1998 03:48:21 +0000
From: Sandy W5TVW <ebjr@worldnet.att.net>
Subject: EICO 710 GDO

I still have an EICO 710 Grid Dipper, with all coils, very well worn in a homebrew wooden box. It is complete and it works OK. It just looks a bit ratty. \$30 plus shipping. Even have a book for it!

73,

E. V. Sandy Blaize, W5TVW
"Boat Anchors collected, restored, repaired, traded and used!"
417 Ridgewood Drive
Metairie, LA., 70001

860 Hartley 'ECO' under construction**
*** Looking for a TRC-10 transceiver *****
*** Looking for an RAL receiver *****

Date: Tue, 6 Jan 1998 22:44:17 -0600
From: "Claton Cadmus" <aplitech@spacestar.net>
Subject: Re: C and L meters

I think the Rainbow Kits L and C measuring circuits are in the 1997(6) ARRL handbook. I built the L meter last year for about 10 bucks including a case and it works quite well. Plenty close enough for government work.

Hope this Helps,

- ----
73 de KA0GKC Claton Cadmus
cla@spacestar.net
MNQRP #1
Minnesota QRP'ers we're looking for you!
Email me or visit this page <http://www.qsl.net/mnqrp>

Date: Wed, 07 Jan 1998 08:32:50 +0000
From: BOB DUCKWORTH <bob@atl.org>
Subject: Re: C and L meters

Jeff-
I have the inductance kit.
It's OK for sorting chokes and the like.
It reads 1mH as 800uH but is consistent.
It does require 200mv scale and 2V scale on DVM
- bob
wb4mnf

Date: Wed, 07 Jan 1998 14:14:00 +0100
From: Jan Axing <janax@algonet.se>
Subject: Re: Jan Axing, SM5GNN

Brian Carling wrote:

>
> Does ANYONE have ANY idea what has happened to our friend,
> Jan Axing, SM5GNN ??
>
> He was a regular here on the group and via e-mail until about a
> month ago, and then suddenly disappeared. I would like to get in
> touch with him, but don't know how any more and his past 2 e-mail
> addresses do not result in any replies when I write to them now.

Hmm... I'm still alive :-)

Just trying to recover from a good radio- and computerfree holiday.
Returned today only to find 568 emails...
Maybe you tried one of my old defunct email addresses?

Also, there were a lot of backbone problems in Sweden just before
xmas. I don't know how it turned out but as I write this (Jan 7)
the net seems to be alright again.

The Barrack's Bag VFO schematic can still be found at
<http://www.algonet.se/~janax/glowbug.htm> or easier to remember
<http://surf.to/sm5gnn/glowbug.htm> It's just the schematic, not
the whole article.

Other important news just received; the "mystery tube database"!!
<http://hereford.ampr.org/cgi-bin/tube> is the latest pointer.
Enjoy!

Jan, SM5GNN

Date: Wed, 07 Jan 1998 09:22:20 -0700
From: Dexter Francis <cwest@xmission.com>
Subject: Re: C and L meters

I recently bought a Tenma 72-875 LCR meter, after
having bought and returned two other types from TechAm,
because they lacked a zero capability or weren't able
to measure capacitance below 40 pf accurately. The
Tenma has been the best \$100 I've spent in a long
time.

Ranges:

0 to 200pf, 2 nf, 20 nf, 200 nf, 2 uf, 200 uf, and 2000 uf
0 to 200 uH, 2 mH, 20 mH, 200 mH, 2H, 20 H, 200H
0 to 20 ohms, 200, 2k, 20k, 200k, 2M, 20M

- -df

Need to Buy or Sell Tubes, Parts or BA Gear?
Visit our Web site at <http://www.xmission.com/~cwest/>
e-mail to: tubes@usa.net -or- cwest@xmission.com
P.O. Box 22443, Salt Lake City, Utah 84122

End of glowbugs V1 #219
